

REMARKS

Reconsideration and allowance of the above-identified patent application are respectfully requested. Claims 17-21, 23, 24, 26-28, and 30-32 remain pending, wherein claims 17, 19, 20, 23, 24, 26, 30, and 31 have been amended, claims 22, 25, and 29 have been canceled, and claims 1-16 and 33-40 have been withdrawn.

Initially, Applicants note with appreciation the Examiner's courtesies extended during the telephone conversation with Eric Kamerath on January 19, 2005, wherein a provisional election was made without transverse in response to the restriction requirement identified below.

Applicants also note with appreciation the Examiner's consideration of the documents submitted with the Information Disclosure Statement (IDS) filed on March 12, 2001. Applicants kindly note, however, that the Patent Office has not acknowledged consideration of the documents submitted with the Supplemental IDS filed on January 28, 2005. Accordingly, submitted herewith is another copy of the PTO Form-1449 submitted with the Supplemental IDS filed on January 28, 2005. Applicants respectfully request that the Examiner consider the documents listed on the attached PTO Form-1449 and acknowledge such consideration by returning an initialed copy of the attached form with the next communication from the Patent Office.

In the first paragraph of the Office Action, the Examiner has requested an election of a single subclass to be examined along with the identified single class. The Examiner has identified the subclasses as follows.

Invention I as containing claims 1-16;

Invention II as containing claims 17-32; and

Invention III as containing claims 33-40.

As previously noted in the provisional election, Applicants hereby elect without traverse Invention II. Accordingly, Applicants withdraw Inventions I and III from consideration in the present case, although reserving the right to prosecute these claims in a separate application at such time as may be appropriate, and as within Applicants' rights.

In the tenth paragraph of the Office Action, all of the independent claims (17, 20, and 26) have been rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over U.S. Patent No. 6,202,211 to Williams, Jr. ("*Williams*") in view of Richardson, et al., "*Virtual Network*

Computing," IEEE Internet Computing, January-February 1998, pp. 33-38 ("*Richardson*"). The remaining dependent claims were also rejected as allegedly being unpatentable over *Williams* in view of *Richardson*.¹ These grounds of rejection are respectfully traversed.

In general, the present invention is directed towards the compressed video transmission of display commands representing user interfaces for various programs. A first embodiment of Applicants' invention, as claimed for example in independent claims 17 and 21, relates to a method and remote computing server system for executing a plurality of programs, each of which generates a set of display commands representing a user interface for each of the plurality of programs. The sets of display commands are then degraded in response to transmission bandwidth limitations and transmitted as compressed video streams to various remote locations.

Another embodiment of Applicants' invention, as claimed for example in independent claim 26, relates to a multi-headed display generator that includes a CPU running one or more programs that generate in totality at least two sets of content independent display commands. The generator further includes a compressor that converts the two sets of display commands into two simultaneous compressed video streams. The generator provides for a trade off of the compression of one set of display commands with the compression of a second set of display commands, wherein the compression of the sets utilizes one shared resource of the generator.

It is respectfully submitted that the combination of *Williams* and *Richardson* does not render claims 17, 21, and 26 unpatentable for at least the reason that the combination does not disclose or suggest all of the elements these claims. For example, regarding claims 17 and 21, the combination of *Williams* and *Richardson* does not disclose or suggest degrading a set of display commands in response to transmission bandwidth limitations and transmitting the

¹Although the prior art status of the cited art is not being challenged at this time, Applicants reserve the right to do so in the future. Accordingly, any arguments and amendments made herein should not be construed as acquiescing to any prior art status or asserted teachings of the cited art.

degraded display commands as compressed video streams to various remote locations, as recited, *inter alia*, in claims 17 and 21.

Williams discloses enabling multiple users to concurrently access a PC-based server in a home local area network using conventional TVs as display devices. Although *Williams* discloses modulating desktop data at a server onto a video channel that is transmitted to a client, *Williams* is silent with regards to video compression (as acknowledged by the Office Action) and does not disclose or suggest degrading display commands in response to transmission bandwidth limitations prior to modulating such data onto the video channel. Recognizing some of the deficiencies of *Williams*, the Office Action cites *Richardson*.

Richardson discloses a virtual network computing environment based on a simple display protocol for accessing graphical user interfaces on virtually any device with some form of communications link (e.g., the set top box in *Williams*). Unlike *Williams*, *Richardson* provides for various video encoding schemes for rendering, on the display of a client, desktops and other applications generated at a server. *Richardson*, however, does not rectify those deficiencies noted above with regards to *Williams*. In particular, *Richardson* does not disclose or suggest degrading a set of display commands in response to transmission bandwidth limitations and transmitting the degraded display commands as compressed video streams to various remote locations.

Nevertheless, the Office Action relies on the "Single Graphics Primitive" section on page 35 of *Richardson* as allegedly disclosing "a system that allows various encoding schemes in order to trade off parameters to compensate for bandwidth limitations." The Office Action then concludes that it would have been obvious to "degrade [] *video streams* responsive to bandwidth limitations." (Emphasis added). Although Applicants agree that *Richardson* discloses that

"allowing various encoding schemes for the pixel data gives a [] degree of flexibility in trading off parameters such as network bandwidth, client drawing speed, and server processing speed" (see pg. 35, ll. 23-26), *Richardson* does not disclose or suggest degradation of display commands and the transmission of the degraded display commands as compressed video. Rather, *Richardson*—at most—discloses providing various encoding schemes for video streams of application data, not degrading display commands and the transmission thereof as compressed video data.² Because *Richardson* cannot rectify those discrepancies noted above with regard to *Williams*, the combination of *Williams* and *Richardson* does not disclose or suggest all of the elements of claims 17 and 20; and therefore the combination does not render these claims unpatentable.

As previously stated, with regard to claim 26, it is respectfully submitted that the combination of *Williams* and *Richardson* does not disclose or suggest all of the recited features of this claim. For example, the combination of *Williams* and *Richardson* does not disclose or suggest a generator with a compressor for converting two sets of display commands into two simultaneous compressed video streams, wherein the generator trades off the compression of one set of display commands with the compression of a second set of display commands, as recited, *inter alia*, in claim 26.

As mentioned above, *Williams* discloses enabling multiple users to concurrently access a PC-based server in a home local area network using conventional TVs as display devices. *Williams*, however, is silent with regards to video compression; and therefore *Williams* cannot possibly disclose or suggest converting two sets of display commands into two simultaneous

² Applicants note that although not expressly argued herein, Applicants do not acquiesce to the Office Action's assertion that *Richardson* discloses "degrading" video streams responsive to bandwidth limitations. Accordingly, any arguments and amendments made herein should not be construed as acquiescing to any alleged assertions of what the prior art may teach.

compressed video streams, wherein the generator trades off the compression of one set of display commands with the compression of a second set of display commands. Recognizing some of the deficiencies of *Williams*, the Office Action cites *Richardson*.

As previously mentioned, *Richardson* provides for various video encoding schemes for rendering, on the display of a client, desktops and other applications generated at a server. The Office Action relies on the same cited section above of *Richardson* as allegedly disclosing "trading off parameters within the system, in order to accomplish multiple desktops (as taught by *Willimas*)." *Richardson*, however, is silent with respect to converting two sets of display commands into two simultaneous compressed video streams. As such, *Richardson*, cannot possibly disclose or suggest a trade off of the compression of one set of display commands with the compression of a second set of display commands during such simultaneous compression. Accordingly, *Richardson* does not rectify those deficiencies noted above with regard to *Williams*; and therefore the combination of *Williams* and *Richardson* does not render claim 26 unpatentable.

Based on at least the foregoing reasons, Applicants respectfully submit that the cited prior art fails to make obvious Applicants' invention, as claimed for example, in independent claims 17, 20, and 26. Applicants note for the record that the remarks above render the remaining rejections of record for the independent and dependent claims moot, and thus addressing individual rejections or assertion with respect to the teachings of the cited art is unnecessary at the present time, but may be undertaken in the future if necessary or desirable, and Applicants reserve the right to do so.

All objections and rejections having been addressed, it is respectfully submitted that the present application is in condition for allowance, and notice to this effect is earnestly solicited. Should any question arise in connection with this application or should the Examiner believe that a telephone conference with the undersigned would be helpful in resolving any remaining issues pertaining to this application, the undersigned respectfully requests that he be contacted at +1.801.533.9800.

Dated this 14th day of April, 2005.

Respectfully submitted,



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